Re-thinking irrigation to fight hunger

Submitted by Jonathan Kamkwalala [1] on Tue, 2012-08-28 10:28

Food prices are spiking globally and in Africa one way to ensure food security is to rethink the role of irrigation in agriculture and food production.

Achieving food security in Africa is a critical issue, even as efforts are stymied by drought, floods, pestilence and more. To these natural disasters, we can add the challenge of a changing climate that is predicted to hit Africa disproportionately hard.

So, what can we do? World Water Week [2] kicked off on Sunday in Stockholm and how water impacts food security will be the focus.

In the World Bank's Africa Region [3], we are working on the belief that a proven way to expand agriculture and food production in Africa is to focus on scaling up irrigation programs, bringing water to parched lands, and strengthening the hands of farmers who produce food against climatic odds.

Despite chronic food shortages, Africa is not a water-poor continent. In fact, its water endowment rivals that of other continents. The continent is home to major river basins: Niger, Lake Chad, Nile, Zambezi and Orange, and accounts for about 10% of global freshwater resources, according to the UN's Africa Environment Outlook 2 [4].

Yet getting water to people and agricultural land has proven to be a challenge. As little as 7% of the continent's arable land is irrigated – or artificially watered. The rest of African farmland is subject to the vagaries of erratic rainfall. This means that when there is a drought, as there is now in the Horn of Africa and in the Sahel, much of the land stays dry preventing farmers from producing crops and forcing people to depend on costly imports – and that's on the off-chance they get access to imported food. This dependence on rainfall, droughts and resulting food shortages together have cost thousands of lives and have impacted millions of people.

Irrigation investments in pipes, channels and canals that help water flow to dry areas, and in more large-scale multi-purpose dams that provide water and control flooding, will bring relief to drought-weary regions and help blunt the worst effects of unpredictable weather.

Boosting irrigation investments also benefits small landholders and is an important solution to addressing Africa's development deficits.

But needs are large, and providing irrigation to cover 93% of Africa's landmass is no easy matter. Multi-purpose dams, canals, channels and water pipes are expensive, regardless of scale. Projects both large and small are needed.

One way to support the government's financial investment in irrigation is to help farmers move up the value chain by encouraging them to plant high-value crops such as vegetables, fruits, flowers, and spices. The returns will help to not only repay the government's investment

but also increase farmer incomes. However, the shift from subsistence to high-value farming must be done in a sensitive manner. Governments must provide farmers with tools and technical advice and the infrastructure necessary for them to make the shift so that basic goals of food security are met while grasping those opportunities that can lead to higher incomes.

As delegates deliberate at World Water Week, I hope the blue and placid waters of Lake Mälaren will serve as an inspiration for launching the next generation of projects and programs that will spread irrigation to the farthest corners of Africa. I hope, too, that participants will learn more than they thought possible about the critical link between water and food security and commit themselves to improving irrigation to benefit people, boost production, and protect the environment.

And perhaps next year we can talk about more than just the link between water and agriculture, but also the link with hydropower to address Africa's energy deficit – only one in three Africans has access to energy. After all, for a region to have sustainable irrigation it needs stable and adequate electricity supply.

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